Journal of the Amateur Photographic Society of Madras.

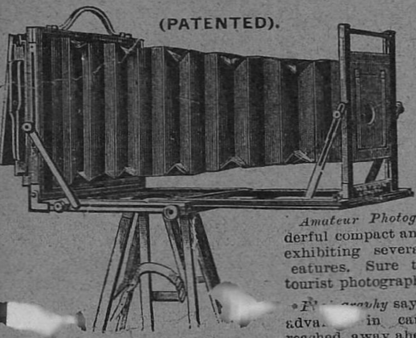
Vol. 4.—No. 1. Price As. 8.

December, 1897.

HIGHEST CLASS PHOTOGRAPHIC REQUISITES.

WATSON'S ACME TOURIST'S CAMERAS AND RECTILINEAR LENSES.

(PATENTED).



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British Journal of Photography says:—"It folds into a smaller compass, and is lighter and more portable than any pattern we have yet seen."

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Camera and three double slides	9	12	0	10	0	0	12	5	0	14	0	0	16	12	6	21	0	0
Rapid Rectilinear Lens with Iris diaphragm	4	0	0	4	10	0	5	0	0	6	15	0	8	15	0	11	10	0
Solid Leather Travelling Case with spring lock ...	1	15	0	1	15	0	2	2	0	2	10	0	3	0	0	3	15	0
Rotating Turntable in base, and Tripod Stand ...	2	2	0	2	2	0	2	2	0	2	10	0	2	15	0	3	3	0
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Aluminium Fittings—Reduced Prices.

¼-plate and 7½ x 5	8½ x 6½	10 x 8	12 x 10	15 x 12
£2 10 0	£3 0 0	£3 10 0	£4 0 0	£4 10 0

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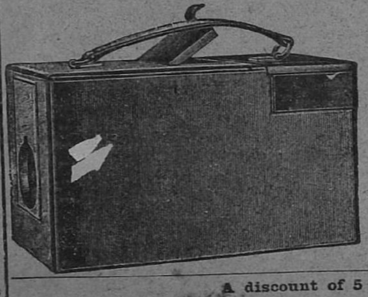
THE VAN NECK HAND CAMERA.



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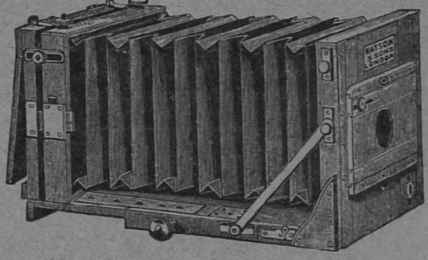

For Studio and Field. Made with Square Bellows and Reversing Back.

PRICES, with 3 Double Slides:

½ plate, £9 12 Whole pl., £12 5 10 x 8, £14 0 12 x 10, £16 12 6

A Repeating Back can be fitted to this Camera for Studio purposes:

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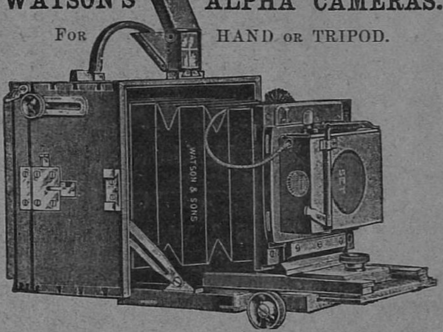

No 2 Alpha Outfit.

Sizes	¼ plate.			5 x 4			½ plate.		
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Camera with double action front, double extending base, swing back, and rackwork focussing adjustment, and three double dark slides	6	10	6	7	1	6	8	5	6
Rapid Rectilinear Lens with Iris Diaphragm ...	2	17	6	3	2	6	4	0	0
Exposure Shutter	1	0	0	1	0	0	1	0	0
Finder	0	10	6	0	10	6	0	10	6
Best Solid Leather Travelling Case, with Lock and Key.	1	2	0	1	5	0	1	10	0
	12	0	6	12	19	6	15	6	0

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4th issue.

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Hyposulphite	... per lb. ...	0	5
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&c. &c. &c.

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PHOTOTYPIE S.A.D.A.G. GENÈVE

A HPOONGYEE KYOUNG

Vol. IV. No. 1. December, 1897.

Journal of the Amateur Photographic Society of Madras.

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EDITORIAL NOTES.

THE dangers connected with the use of acetylene under certain conditions have caused the Home Authorities to institute the following order.

"Notice is hereby given that after the expiration of forty days from the date hereof, it is proposed to submit to Her Majesty in council in pursuance of the above-mentioned act, the draft of an order in council declaring acetylene when liquid, or when subject to a certain atmospheric pressure, and when not specially exempted by an order of the Secretary of State to be an explosive within the meaning of the explosives act, 1875, and prohibiting its being manufactured, imported, kept, conveyed, or sold."

THE following appears in the *American Amateur Photographer* as likely to be interesting. Those who employ Thornton-Pickard or other roller blind shutters in front of their lenses, may in the following way secure clouds in their landscapes when time exposures have to be given, *i.e.*, give the necessary longer exposure to the foreground or lower part, and a shorter exposure to the sky.

Don't set the shutter before drawing out the slide, but after drawing it out pull the cord so as to raise the blind sufficiently to expose the foreground for about two-thirds the estimated exposure, and lower it; cover the opening of the lens set the shutter, and then give to the whole the remaining third.

AN interesting article has appeared in this month's Practical Photographer on Professional Photography as a career for women, and the suggestions contained in it are so sound, that they are reprinted here as good advice to amateurs of both sexes in their delightful camera hobby. To make others and ourselves satisfied with our pictures the foundation stone is "Art."

Learn art first and photography afterwards if we wish to aim at distinction and originality.

194231

The non-artistic photographer produc[es] photos. by the thousand in a mechanical "happy-go-lucky" style, but the picture the eye loves to dwell on, and read a story in, is the one to make our names famous. Miss Francis B Johnstone evidently recommends portraiture, as the most lucrative branch, to women who are taking up photography as a career. Now we amateurs know well that to keep our friends we should never photograph them! However this should not be; therefore Miss Johnstone's advice may help us.

"In portraiture, especially, there are so many possibilities for picturesque effects—involving composition, light and shade, the study of pose, and arrangement of drapery—that one should go for inspiration to such masters as Rembrandt, Van Dyck, Sir Joshua Reynolds, Romney and Gainsborough, rather than to the compilers of chemical formulæ. In fine, learn everywhere and of everybody; study carefully the work of other photographers, whether good, bad or indifferent; be sure to always regard your own productions with a severely critical eye—never an over indulgent one; guard against this, and, above all, never permit yourself to grow into a state of such superior knowledge that you cannot glean something from the humblest beginner.

"Photographic portraiture should prove a charming and congenial a field for artistic effort as a woman could desire; and that it is lucrative is well demonstrated by many women who are successfully established in the business. To properly conduct a photographic studio, experience, training and capital are required. Nothing more, however, than is necessary to enter other professions, with the added advantage that, from the start, photography is usually made to pay something.

"The ideal studio is, of course, the one built or remodelled to suit the exact needs of the photographer. But, in most instances, the woman entering professional photography will be obliged to content herself with what she can find ready to her use.

"My studio room is eighteen by thirty-two feet, with a single slant sky-light of ribbed glass, on an angle of about sixty-five degrees, and twelve by sixteen feet in size. Ribbed glass gives the soft, diffused light so desirable for effective portraiture, but needs to be further screened with transparent white curtains over the entire skylight, and, on occasion, patches of semi-translucent curtains to tone down the intense high-lights. Inside the white curtains are opaque shades on rollers, which overlap and serve to shut out the light whenever necessary.

"I have tried to make my sky-light room as artistic, as cheerful and as inviting as would be the studio of an artist. Most people consider dentistry and having their pictures taken as being equally unpleasant and painful, and shrink from the one quite as much as they do from the other. I do not know if dentistry can be robbed of its terrors, but I am sure that the imaginary sufferings of those who visit the photographer can be to a great extent mitigated—in fact can be wholly dispelled by making the studio of the photographic artist inviting and attracttive. This is a very great factor in making portraiture photography a success. I fully understand and appreciate the fact that every photographic studio cannot be metamorphosed into an artist's den. This, of course, is impossible, and in many instances it would not prove a profitable undertaking. Again it might not be suitable to so transform a photographic establishment, and besides, it might prove to be the very opposite of convenient. However, the point to which I wish to give emphasis is that a woman of good taste will exercise it in order to avoid the bare ugliness and painful vulgarity of the ordinary "gallery," and make it her careful study to render her surroundings as attractive and beautiful as possible. I must not be understood as saying that the galleries of all photographic artists are ugly and vulgar in appearance, for I only want to say that with a little additional effort the usual photographic establishment can be made much more attractive and inviting to the public, also much more in harmony with art. I think that what I have said makes entirely plain the value I set upon making the studio inviting.

"As to the actual work under a skylight, only a few general hints may be given, as here each must 'work out her own salvation.' Do not attempt to pose people, or to strain your sitters into uncomfortable or awkward positions, in order to obtain picturesque effects. Watch them and help them into poses that are natural and graceful. Study their individuality, striving to keep the likeness, and yet endeavouring to show them at their best. Avoid emphasizing the peculiarites of a face either by lighting or pose; look for curves rather than angles or

straight lines, and try to make the interest in the picture centre upon what is most effective in your sitter. The one rule of lighting is never to have more than a single source of light. Many portraits, otherwise good, are rendered very inartistic by being lighted from several different directions.

"Another consideration of the first importance is not to permit portrait negatives to be over-retouched. It is not too much to say that this is the worst fault of the average professionals. Their work strikes the level of inanity, because they consider it necessary to sandpaper all the character and individuality out of the faces of their sitters. In regard to the finished work I would strongly advise the use of only the best and most permanent printing processes. Mounts should be quiet and effective, while correct taste, simplicity and a sense of the eternal fitness of things should be displayed in the matter of letter-heads, announcement cards and all other forms of advertising. The importance of this often-overlooked detail must be obvious to every one.

"Good work should command good prices, and the wise woman will place a paying value upon her best efforts. It is a mistaken business policy to try and build up trade by doing something badly cheaper than somebody else. As to your personal attitude, be businesslike in all your methods; cultivate tact, an affable manner, and an unfailing courtesy. It costs nothing but a little self-control and determination to be patient and good-natured under most circumstances. A pleasant, obliging and business-like bearing will often prove the most important part of a clever woman's capital.

"By the judicious and proper exercise of that quality known as tact, a woman can, without difficulty (in fact, she can readily), manage to please and conciliate the great majority of her customers—even the most exacting ones. She may do this, too, without being very greatly imposed upon—without being imposed upon at all. Tact, I would emphasize, is a great factor in successfully conducting a photographic studio; it is, I suppose, a virtue to be cultivated by every one who has dealings with the public, and who is brought into contact with people in whatever business or calling she may be engaged.

"Above everything else be resourceful, doing your best with what you have until you are able to obtain what you would like. Resource, good sense, a cultivated taste and hard work form a combinnation that seldom fails of success in a country like ours, where a woman needs only the courage to enter any profession suitable to her talents and within her powers of accomplishment."

WILSONS Photographic magazine suggests an easy way for the avoidance of halation when interiors or brightly lighted landscapes are to be photographed, *viz.* to use the deep red tissue paper used for making artificial flowers. The paper should be cut to the size of the plates to be used dipped in castor or heavy paraffin oil and rubbed into contact with the glass side of the plates with the finger.

A VERY hearty vote of thanks was accorded to Surgeon-Major VanGeyzel at the last meeting for his indefatigable and most praiseworthy work in connection with the editorship of this journal.

Few understand the difficulties he underwent, and one of them may be mentioned as an instance. When first he took up the work he printed numerous photographs for the frontis pieces in order to make the Journal more attractive; this meant enormous labour. There are many Amateurs in this Presidency who have found in him a willing and a most sound helper when they have been in "seas of difficulty." He has never been known to say "No Time" and even now he only retires from ill health. His last words at the meeting in responding to the vote of thanks were "I shall always be most happy to do my utmost to help the Society in anyway I can," words most characteristic of him; so, one and all, we give him our most sincere thanks.

IN taking up the Editorship of this Journal I wish to take the first opportunity of expressing my thanks to the Committee and all the Members of the Society for the honour they have paid me, in asking me to take up the work.

To those who are helping me, and have promised me assistance I tender my sincere thanks, and I shall look forward in the future to contributions of negatives for the monthly Frontispiece of the Journal and for any Literature likely to be interesting. Thus will help be given not only to the Editoress, but the success of the Journal will be insured.

OUR ILLUSTRATION.

The Dragon Hpoongyee Kyoung.

BY

MRS. MCNAIR.

The building pictured in the frontispiece was found by me quite accidently near the small station of Myohoung close to Mandalay. This station is the junction for the Mu Valley Railway, and when I was living at Sagaing, this line was under construction and a good many inspection visits had to be paid to Myohoung.

As there was a pleasant river crossing of about 20 minutes in a steamer and a trolly ride through leafy Amarapoora, I often went on these inspection trips and while business was being discussed wandered about in search of discoveries.

The Burman is very easy going about allowing visitors into his shrines, so I wandered happily about and saw all sorts of curious drawings and figures and galleries—often containing over 100 figures of the contemplative Buddha, sitting, lying, and standing.

On one of my visits to Myohoung a tumbled down lofty building attracted my attention, and inside, I found a hugh teak wood standing figure of Buddha, about 30 feet high. The drapery was arranged in excellent, though perhaps somewhat stiff, folds and evidently it had once been covered with gold leaf, but the figure was now pulling forward its supporting wall and it looked anything but safe to go near. All the pagodas and buildings about were in a more or less ruined condition, for this was on the outskirts of one of the deserted capitals—Amarapoora by name. Except in the case of the renowned pagodas, to which pilgrimages are made, such as the Shway Dagone in Rangoon, the golden pagoda of Prome, the Arracan pagoda near Mandalay,—no attempt as a rule is made to keep them in repair, so ruins are plentiful. It is not considered a benefit to keep up an old building but a glory to build a new one as by the liberality of his gifts, a Burman gains Nirvana, and the gift of a Hpoongyee Kyoung or pagoda is the height of his ambition.—Even the beautifully carved Hpoongyee Kyoung in my picture is falling to pieces!—Wandering about one day I entered a walled enclosure and suddenly among the tamarind trees found a glittering building—my picture.—The whole of the Hpoongyee Kyoung was once covered with gold leaf, traces of which still remained, and bits of looking-glass sunk into the lacquer work and gilding shone brilliantly in the sunshine. Having found such a likely subject for a photo, on my next visit I brought my camera and found the old Hpoongyee and his acolytes most interested in my proceedings and quite ready to be photographed in the shaky verandah.

Now a Hpoongyee is not supposed to look at the opposite sex, but to cast down his eyes or else modestly hide himself behind his large palm leaf fan, but I never found him shy of being photographed by me. They however drew the line at being touched, for they never offered to shake hands with me though often anxious to do so with the men folk of the party.

Plenty more of such beautifully covered buildings hidden away in all sorts of out of the way places, did I find, riding about the Sagaing Hills. They seemed fit spots for a life of contemplation and self-denial, for indeed it must be a real labour, the daily trudge to beg for food, so distant are the villages. As the mendicant, the Hpoongyee is supposed to dress in cast off rags and to simulate this, the long-cloth, wrapped togo like about him, has a great number of joins. I found this out examining the festions of yellow cloths that made a part of Sagaing brilliant. There are large dyebats with bubling yellow liquid, made by boiling the wood of the jack fruit tree, and quantities of cloths were always being dyed and then hung up under the trees to dry, the contrast with the green delighting the eye.

All this neighbourhood abounds in big ruins, for Sagaing was once the capital, then, on the opposite bank of the river, Ava, afterwards Amarapoora, and lastly Mandalay. As each new king succeeded, it was considered correct that the old capital should be destroyed and a new one built, and, in the belief of the Burman, if king Thebau had only moved his capital instead of remaining on in that of old king Mindoon Min, he would be reigining still.

OUR HOME LETTER.

November 18th, 1897.

In spite of pessimistic opinions from various quarters, exhibitions great and small seem to be steadily increasing. As one who visits a great many of them, I may say that there seems also to be a steady improvement in the quality of work shown. It is

surprising to find also that many are a financial success, some few remarkably so. For instance the recent Glasgow International Exhibition which was open for a month, and visited by a great many thousands of people, has yielded to its promoters the Glasgow and West of Scotland Amateur Photographic Association, a handsome balance of about £500. This was partially due to the excellent nature of the evening entertainments, and to that very popular invention the cinematograph. Notwithstanding the special evening attractions, however, a great many people patronized the Exhibition during the day time. A recent and minor show at Manchester, the annual display of members' work in connection with the Photographic Association has also drawn a large number of people. The lantern entertainments of the ordinary type were enormously popular, and the large Hall of the Athenæum became crowded to excess every evening. Scarcely a week passes during the winter months without some event of this kind, and it is certain that these exhibitions are doing a great deal of good in enabling photographers to examine each others work, and also in educating the general public to appreciate the very beautiful effects which may be produced by photography. An exhibition is particularly valuable to the practical photographer when it includes a loan collection of works by some of the best men, showing the highest of which the art is capable in clever hands. I must not conclude my remarks about exhibitions without some allusion to a recent trade affair got up by the Eastman Co., certainly the finest trade exhibition which has ever been seen in this country. The New Gallery with its spacious halls was secured by the firm, and having offered prizes for photographs taken with their apparatus, they received some 25,000 prints for competition. The best of these were selected and appropriately framed for the exhibition. One room was entirely occupied with different forms of cameras, and other apparatus made by the company. Another large hall was devoted to the competitive class, a third occupied with examples showing results to be produced by special treatment of different sensitized papers manufactured by the Eastman Co. Yet a fourth gallery was filled with enlargements from negatives lent by many of our greater photographers. These enlargements were all done by the Eastman Co. and the framing of them was performed with remarkable taste, while the room itself was decorated in a most appropriate fashion.

The National Photographic Record Association under the Presidency of Sir J. Benjamin Stone is now settling down into what we feel sure will be a permanent institution of great value to the country at large. We alluded to the qualifications for membership last month. Circulars and full particulars will be gladely sent by the Secretary, Mr. Geo. Scamell, 21, Avenue Road, Highgate, London. The regulations as regards contributions are as follows: Photographs must be printed in carbon, platinum, or other permanent process, and be deposited unmounted with the curator, who shall have them uniformly mounted upon official mounts provided for the purpose. For the sake of uniformity whole plate ($8\frac{1}{2} \times 6\frac{1}{2}$) shall be regarded as the standard size for photographs. Two or more prints of a smaller size may be placed on one mount. Enlargements beyond whole-plate size are not recommended. In all cases it is desirable in taking pictures that a relative scale of size should be indicated. Thus a man or a child might appear in an archway, or near a boulder stone, or a measured rule might be introduced where more scientific accuracy is desired, and for the purpose of recording the orientation of the building or subject photographed, it is desirable that the point of the compass towards which the lens of the camera points when the photograph is taken should be notified.

The Earl of Crawford spoke weightily in support of the Metric System at the Annual meeting of the Royal Photographic Society, and strongly advocated photographers to adopt it for their operations as being much more simple than our absurd and antiquated English weights and measures. Among new apparatus I should like to mention a little appliance particularly adapted for hot climates, where a great deal of dust is always present in the atmosphere. This is a drying box made by David Allan of Whitefield Street, London. When erected it looks not unlike a meat safe, but is rectangular and compact. Each of the four sides has a gauze window, the top and bottom, however, are of Japan metal. Inside there are grooves for receiving the plates. The arrangement shuts up quite flat, and is exceedingly portable. It is made in varying sizes, from $\frac{1}{4}$ plate up to 15 by 12.

The Eastman Company who scored with their Pocket Kodak about a couple of years ago have just brought out a new folding Pocket Kodak, perhaps

the most portable camera of its class yet made. It takes pictures about half ¼ plate size, and can be comfortably put in the breast pocket when closed.

MATTHEW SURFACE.

PROCEEDINGS OF THE SOCIETY.

Monthly Meeting held at the Masonic Hall, Mount Road,

Friday, 3rd December, 1897.

Mr. C. Michie Smith, *President, in the chair.*

The meeting was very well attended, a large number of members and visitors being present.

A vote of thanks to the late Editor Surg.-Major J. L. VanGeyzel was proposed by Surgeon-Major-Genl. Sibthorpe, who referred to the valuable services rendered to the Society, especially in connection with the Journal, by Surg.-Major J. L. VanGeyzel. Mr. C. E. Phipps seconded the motion which was carried unanimously.

Surgeon-Major VanGeyzel in reply thanked the members, and expressed his regret at being obliged to resign the editorship of the Society's Journal. He was glad however to leave the Journal in such excellent hands and wished it every success.

PICTURES FOR THE MONTH.

Pictures for competion of a "Landscape" were sent in by Mrs. McNair, Mrs. Leet Palk, Surg.-Major-General Sibthorpe, and Mr. T. Chokkana. Mr. F. Dunsterville also showed several excellent photographs.

NEXT MEETING.

The next meeting will be the Annual General Meeting, on Friday the 7th January 1898, and it is hoped that there will be a good attendance of members. There will be no picture competition at this meeting. The picture subject for February is

"PETS."

A great deal of time would be saved at meetings if members would kindly think of some subjects for monthly competitions before the meeting; up-country members could suggest some subjects by post to the Secretary and then could be put to the vote at the meetings.

LANTERN SLIDE EXHIBITION.

When the usual routine of business had been gone through the meeting resolved itself into an exhibition of Lantern Slides, and the exhibition was a thorough success in every sense.

First were shown by Mr. R. Ll. Jones a series of slides illustrating the "Nansen Expedition" and these were most highly interesting. It is somewhat of an exercise for the imagination to realise in Madras the conditions of a Polar expedition; but a very thrilling idea of Dr. Nansen's trip was suggested by this exhibition of slides, showing the explorer himself in various costumes, "The Fram" at places of interest, residences erected *en route* for man and beast, the methods employed for ascertaining various data of scientific and geographical interest. The "Ice fields in summer" was a most realistic picture where the Fram is hedged in on a hill of Ice, with a lake of water some feet below her, to which we presume she gently descended. This picture, as a slide alone, was very beautiful. Slides were shewn depicting the various occupations of the men, *i.e.*, sounding and taking the temperature of the water, and finally after the days work we see the men in a cosy corner of "The Fram, singing to the "Concertina" and smoking the "pipe of peace."

Nansen's journey across the ice to Jackson's Town must have been full of dangers and we find him in one place living in a natural cave, with a few huts, and finally after many months of travelling we see him almost unrecognizable in tattered garments and skin almost black from "no bath." The series ended with a cartoon from Punch of "The North Pole as it really is" "for the information of Nansen and his friends." We hope Nansen will liveto explore again, and make Punch apologize.

After the exhibition of Dr. Nansen's slides Mr. F. Dunsterville and Surg.-Major VanGeyzel showed a large number of excellent slides of great interest. The former commenced his selection with views at "Vijiunuggar" of the Temples, Council-Hall, the elephant stables, and a lovely carved pillar in a temple, which was a beautiful picture of a most difficult subject and brought before us every detail of the carving in a most telling manner. Some ruins at Humpi, and of the Cauvery Falls followed; after which we were taken to Lowestoft to contemplate a sunset and a quiet sail in a fishing yawl, then we returned to sunsets in Madras. Views of Sidney and the Malabar Coast were fol-

lowed by exquisite moonlight scenes, one, a coloured slide, was much admired.

Surg.-Major VanGeyzel then took up the exhibition and shewed his beautiful soft pictures of different scenes in the Shevaroys, "The Ladies Seat, "Mist" "Yercaud Lake." He then shewed us that "the Cooum" could be beautiful!!" The last few slides shown were fine examples of Röntgen Ray Photography, the radiographs of a man's hand showing shot imbedded, and a "Trilby" exhibited by Surg.-Major VanGeyzel were very interesting although perhaps somewhat gruesome to a non-medical observer. The Society's Frog turned up on the screen and was awarded a welcome.

Among such a collection of good things it is difficult to select any special examples, but mention might be made of Mr. F. Dunsterville's Cloud and Water effects" photographs of sailing boats and of interesting Indian subjects; whilst from Surg.-Major VanGeyzel's slides, some very pretty views of Yercaud, and Moonlight scenery, might be mentioned.

It is needless to add after mentiouing the exhibitor's names that the slides were technically correct.

At the close of the exhibition a vote of thanks to the exhibitors was unanimously carried, and a very pleasant and successful meeting was concluded.

EXTRACTS.

Sodium Sulphite in Photography.

By Prof. A. H. Sexton.

Within the last few years the use of sodium sulphite has become almost universal in photographic developers for dry plates. In the instructions issued by plate makers for the mixing of these developers a few years ago, sulphite was rarely found, now it is just as rarely omitted, and probably 99 per cent. of amateur photographers use it regularly. Under these circumstances it may be of interest to consider briefly the part which the salt plays in the development.

SODIUM SULPHITE.

Ordinary commercial sulphite of soda has the formula $Na_2 So_3 7 H_2o$, and therefore contains just 50 per cent. (halfits own weight) of water. It is perfectly stable if kept in a closed vessel, but on exposure to the air two changes take place. (1) It effloresces or loses water, the surface becoming covered with a white powder which is a lower hydrate of the sulphite. This change does not in the least interfere with its usefulness (2) The sulphite may be oxidised by the air to sulphate. This change is quite independent of the efflorescence and takes place much more readily in damp than in dry air, whilst the salt effloresces much more readily in dry air than in moist. It is very disadvantageous as the sulphate formed has no preservation action, but may act, as a retarder. Efflorescence and oxidation do not by any means necessarily go together, and a sample may be much effloresced with either but little or very much oxidation. In solution the oxidation takes place much more readily, so that solutions of sodium sulphite do not keep well, unless they are made with air-free, *i.e.*, boiled, water and kept in wellfilled, well-closed bottles.

Commercial samples of sodium sulphite often contain a considerable quantity of sulphate. The writer has frequently found as much as 4·9 per cent. in samples obtained from photographic dealers Owing to the readiness with which the last oxdizes, sulphate is always found when solutions are made with unboiled water. In one case a sample of chemically pure sulphite gave on solution in ordinary water ·6 per cent. of sodium sulphate, this no doubt being produced by oxidation during solution.

The principal impurity in commercial sodium sulphite is sodium carbonate. In the best samples there is hardly a trace, certainly not enough to do any harm, but in others there may be two or three per cent. The price charged is no guarantee whatever, samples purchased from the best photographic dealers having been found to be as impure as those from the most pushing stores.

It is best to purchase sulphite from some good maker in closed 1 lb. tins, and not to depend on that which the dealers may have in stock which may have been exposed to the air for weeks in large bottles or jars.

The advantages of the use of sulphite in "pyro" developers are two. (1) It acts as a preservative, and (2) it prevents the staining of the negative. The preservative action only takes place in acid solutions, and therefore when the sulphite is used for this purpose it should be acidified by the addition of a few drops of sulphuric acid, till after shaking well the solution smells strongly of sulphur dioxide. The acid decomposes the sulphite, forming hydrogen sodium sulphate and liberating sulphur dioxide, thus $2 Na_2 So_3 + H_2 So_4 = 2 Na H So_3 + H_2o + So_2$

The sulphate acts as a restrainer, and the sulphur dioxide forming with the water sulphurous acid $H_2 So_3$ requires alkali for its neutralization. Only the smallest quantity of acid should therefore be added. If sodium bi-sulphite $NaHSo_3$ be used the addition of acid is unnecessary. The amount of sulphite to be used varies very much, but when it is required only as a preservative one ounce to each ounce of pyro is quite sufficient.

The best preservative, however, is undoubtedly potassium meta-bi-sulphite. This salt has the formula $Na_2 S_2o_5$ ($Na_2 So_3So_2$ or $Na_2 o, 2 So_2$) and on solution it decomposes, probably thus $Na_2S_2o_5 = Na_2So_3 + So_2$ so that the solution is decidedly acid and smells strongly of sulphur dioxide This salt contains no water of crystallization and is therefore much stronger, weight for weight, than ordinary sulphite, and as it does not require the addition of acid, no sulphate or other restraining salt is formed. The amount of meta-bi-sulphite which it is advisable to use is about one-half the weight of the pyro, less would probably suffice, more is no advantage. Pyro solutions even if considera bly diluted, will keep for many months unchanged if meta-bi-sulphite be used as the preservative.

As a stain preventer sulphite is extremely useful. It is known to all workers that negatives developed with pyro in the absence of sulphite are of a brownish yellow colour. No doubt for some purposes this colour is an advantage, and many portrait photographers both professional and amateur prefer yellow negatives, and think that the stain is a decided advantage. When ammonia is the alkali used the staining is often not too pronounced, and therefore in this case sulphite is often not used, but the fixed alkalies in the absence of sulphite give such a deep stain that with them its use is almost essential.

The writer thinks that even with ammonia, sulphite should always be used. The sulphite may be made up with the pyro, with the alkali, or by itself. The last-named is undoubtedly the best method, since the amount of sulphite required does not need to vary so much as the other ingredients, if at all, and certainly not in the same porportions. If sulphite be used—as it almost invariably is—with one or other of the developing solution, enough should be added to the pyro solution to act as a preservative, whilst the remainder should be dissolved with the alkali. The reason for this is sufficiently obvious. The less the exposure of the plate as a rule the more alkali will be required, and the longer will be the development take, and as the longer the development the greater the liability to stain, the more sulphite will be required to prevent this.

The amount of sulphite required to prevent stain will vary with the time of development, and the amount of pyro used. For pyro ammonia developers, about 5 to 10 grains to the ounce is a suitable

quantity, whilst with pyro soda from 40 to 50 grains is best, and about half this is the least that should be used. Even the larger quantity will not prevent stain under all circumstances.

The most convenient method of using the sulphite is to make up a 20 per cent. solution with boiled water and add from 50 to 100 minims of this to each ounce of solution for pyro ammonia or half an ounce to each ounce for pyro soda development.

The exact amount it is best to use will vary somewhat according to see nature of the negative required. The amounts given are on the assumption that the negative is to be free from yellow stain. If a little yellowness be preferred, the amounts may be reduced considerably.

It is usually said that sulphite acts as a retarder, but the writer doubts this very much, in some cases it seems to do so, because a very thin negatives will often print better when it is stained yellow. Many workers therefore prefer to omit the sulphite for nstantaneous or snay-shot work. This may be allowable with ipyro ammonia, but should never be resorted to with pyro soda.

With hydroquinone the use of sulphite is essential, and the amount required is about 20 to 40 grains per oucnce of developer.

With some of the more recently introduced developers sodium sulphite acts not only as a preservative and stain preventer, but its presence is essential to securing printing density, and at the same time it acts as an accelerator. With metol development takes place to some extent in the presence of sulphite without any alkali, but amidol is the only developer with which development is practicable with sulphite only.

With both eikonogen and metol a considerable quantity of sulphite may be used, 20 to 40 grains to the ounce being about the best quantity. In both these cases the sulphite is required as a preservative also, and is added wholly or in part to the developer solution, instead of to the accelerator.

In the case of these developers the sulphite seems to play some important part in the development, as it is impossible to get a negative of printing density without it. With amidol, sodium sulphite acts as an accelerator, and development can be carried on without the addition of any alkali. We have become so accustomed to regard the presence of alkali in excess as essential to the development of dry plates, that it is frequently stated that the sulphite acts as developer in virtue of its own alkalinity or of alkali which it contains. This, however, is not a correct statement of the case. In the first place, alkalinity is not a definite property, but it is a convenient enough term for the popular designation of certain properties, and of certain substances which agree in many respects, but it has no scientific precision, since many bodies are alkaline with one indicator and not with another. Pure sodium sulphite has only the slightest alkaline reaction to phenol-phthalein, certainly it is not alkaline enough to account for its accelerating power, and chemically pure sodium sulphite acts just as well as the common varieties which contain a little sodium carbonate. It is best, therefore, to consider the power as due to the salt itself and not a property voguely called alkalinity.

As sulphite acts as an accelerator with amidol, the quantity used must not be excessive and should be limited to from sixty to eighty grains to the ounce.

So far the development of negatives only has been considered for lantern slides, where absence of stain is essential larger quantities of sulphite may sometimes be used with advantage.

Another use frequently made of sodium sulphite is to add it to the fixing bath. For this purpose it must be slightly acidified with sulphric acid, care being taken not to add excess of acid. Potassium mota-bi-sulphite is, however, better than acidified sulphite for this purpose. It is not necessary here to discuss the advantages of the acid fixing bath since they are now sufficiently well known.—“*The practical Photographer.*”

Toning; Bromide Prints.

By Edmond A. Robins.

To obtain a warm tone upon bromide prints and opals has long exercised the minds of experimentalists, and even now it cannot be truthfully said that there is any process which gives results at all comparable with those tones which can be obtained upon gelatino-chloride or albumenised papers. It is my aim in this short article to enumerate the principal processes which are in vogue at the present time. The first process which I will describe is one with which fine results can be obtained when the negative is suitable—one having “juicy” blacks or shadows, and not too great contrasts —this bath is the “hypo and alum” bath, and the tone is due to a deposition of sulphur upon the image. The tone seems to be permanent, and the color varies from a good sepia to a purple black. The prints must be carried further than usual in development, as the toning reduces the density in a slight degree, and they appear to tone more evenly if the print has previously been dried; the print must have been previously alumed. The formula given by the Eastman Co. is suitable for all bromide papers, and is as follows:—

Hypo	10 ozs.	... ...	284 grams.
Common alum	1 oz.	... ...	28·4 „
Water	70 ozs.	... ...	2,000 c.c.

The solution is of a milky appearance, which is due to the precipitation of sulphur, and is used at a temperature of about 110° F. In this the prints are placed and well moved about until the desired tone is reached. As sulphur dioxide is liberated, it is not advisable to conduct the operation in a confined situation. The prints must be well washed after toning.

A toning bath is described in *The Photogram* of April, 1896, p. 90, which gives shades between sepia and purplish-red, and has given very fair results in my hands, and so I take the liberty to repeat it. To a one per cent. solution of copper sulphate is added a saturated solution of ammonium carbonate until the first formed precipitate is re-dissolved, to this is added a three grain to the ounce solution of potassium ferricyanide; a deep green liquid is formed, the well-washed print is placed in this until of the required shade; it has the drawback that the whites are slightly tinted. This is a great disadvantage in vigenettes, but not so important in solid pictures. The stain can be partly removed by washing in a two per cent. solution of ammonia (·880), or a saturated solution of potassium oxalate; the mixed solution will not keep, and seems to Work better when freshly made up.

A process of toning by means of sulphantimonate of sodium is described by F. J. Mortimer, and gives from red to sepia tones which appear to be permanent. The prints must be freed from hypo, and bleached in a weak solution of potassium bichromate made acid with hydrochloric acid. The print is then well washed for some hours, and placed in a solution of sulphantimonate of sodium about fifteen grains to the ounce, the print turning a Bartolozzi red. It must then be washed untill all the yellow color has disappeared. Mr. Mortimer lays very great stress upon the importance of thorough washing.

The uranium bath is often recommended, but it is found that permanency cannot be obtained with any degree of certainty; the following formula is given by J. Weir Brown, and seems to give very good results, with care, but owing to the presence of potassium ferricyanide in this and other toning baths, the elimination of hypo from the print is so important that too much emphasis cannot be laid upon it. A very slight quantity invariably causes stain.

Uranium nitrate	4 grains	... ...	25 mgs.
Potass. ferricyanide	4 „	... ...	25 mgs.
Acetic acid, glacial	90 mins.	... ...	45 c.c.
Water	8 ounces	... ...	228 c.c.

This solution acts fairly rapidly, and either sepia or brown or red tones can be obtained. The tone should be carried to a redder stage than is desired, as in the subsequent washing the tone tends to become browner. The print must be washed in running water until all the yellow stain is removed, but excessive washing is to be avoided.

Blue tones approximating to those of cyanotype paper can be obtained by immercing the print in the following solution:—to a ten per cent. solution of ferric chloride a ten per cent. solution of potassium ferricyanide is added, until no more precipitate is thrown down; this precipitate is then dissolved in a ten per cent. solution of potassium oxalate by adding the solution to it; the print is well washed and immersed in this. The print, when toned to the desired shade, is well washed and cleaned in a weak solution of hydrochloric acid. It will be seen from the above few notes that bromide toning is in a very early stage of development, and I hope the above will cause some to experiment in this direction—*Photogram.*

The Restoration of Faded Prints.

By W. B. Bolton.

In the issue for August 26th last, at page 540, under “Continental Notes,” mention is made of a process published by Herr Kopecky, in the *Photographische Correspondenz*, for restoring “yellowed” albumen prints, the said method consisting in convert

ing the image into silver chloride, and afterwards redeveloping or reducing it by means of hydroquinone. Some five or six years back I published practically the same process, giving, however, several alternative methods of bleaching, and although the method is a thoroughly practical one when properly worked, certain conditions must be observed in order to ensure success, and I am afraid the meagre details given of Herr Kopecky's plan will scarcely suffice to that end.

In the first place there is something obviously wrong with the bleaching formula quoted, since if the proportion of water were ten times as great as that given it would still constitute a practically saturated solution of potassium bichromate, the effect of which would be to increase rather than remove the yellowness of the print. Bichromate of potash requires for its solution ten times its weight of water at ordinary temperatures, and chloride of sodium nearly three times, but in this formula equal parts of all three are given, which is clearly an impossibility no doubt due to a misprint.

If the bichromate method of bleaching be adopted, and in many respects it is the one to be preferred, since it leaves an image consisting virtually of pure silver chloride, it is not desirable, nor is it necessary, to employ the chromium salt at anything like the strength represented by a saturated solution. A much weaker solution than this will give a strong yellow coloration to the print that will require repeated and prolonged washing in acidulated water to remove it, whereas with a weaker solution still, the stain is easily removed by the sulphite in the subsequent development. The chromic salt does not appear itself to take any part in the bleaching process beyond starting it; the chromic acid set free by the HCl (or other acid) employed probably attacks the image-forming silver chromate, which is at once decomposed by the HCl or chlorides present, and the chromic acid is again set free to act upon a fresh portion of the image, and so on until the process is complete. Thus, while a comparativelly small quantity of bichromate and of hydrochloric acid suffice to set up the action, the real work of bleaching or converting the image is performed by the relatively harmless chloride of sodium, and the sodium should therefore be compounded on those lines. In other words, just sufficient bichromate and free acid should be used to attack the image in a reasonable time, and a sufficiency of soluble chloride to easily convert the whole of the silver contained in the print or prints to be treated, bearing in mind, however, that chloride of sodium and the soluble chlorides generally are more or less solvents or silver chloride.

For the latter reason it is preferable to employ a large volume of solution rather than a smaller quantity in a more concentrated form, as if the latter plan be followed the probability is that the first portions of silver chloride formed will be held in solution to be gradually reprecipitated over the whole surface of the print as the solube chloride becomes exhausted, with the result that the after development effects a reduction of silver in the whiter of the print, and a consequent degradation that is as objectionable as the original yellowness. My attention was first directed to this danger by noticing that some bleached prints left in water and exposed to weak daylight became uniformly tinted just as ordinary unfixed prints would under the same conditions, and on investigating the cause I traced it to the use of a small volume of over-concentrated solution.

Another danger that may arise from the use of too small a bulk of solution of safe strength is that the soluble chloride may be exhausted or nearly so before the image is completely bleached, in which case the chromic acid itself attacks the image, or, rather, the solution is not strong enough in chloride to react upon the chromate of silver formed; and this being partly soluble in water is gradually dissolved out, and the image thus weakened or altogether removed. Hence I repeat—safety and success lie in the direction of a considerable volume of solution of low strength.

The plan I adopt myself is to make a concentrated stock solution of bichromate and salt, slightly acidulated with either hydrochloric, nitric, or sulphuric acid, whichever happens to be most convenient or handiest, for the presence of the soluble chloride it matters not which acid is employed to bring the chromic acid into active condition. Of this stock solution I add sufficient to, say, half-a-pint of water to give it a strong yellow colour, and to cause it to show signs of acting on the print in something less shan a minute's time. The print or prints are moved about in this as in toning, and small quantities of the stock solution added from time to time as the action appears to lag. If this course be adopted, there will never be a sufficient strength of salt present to exert any appreciable solvent action on the silver chloride, while there will always be a sufficient quantity to decompose the chromate of silver as formed. Of course, the bleaching takes longer, but this is a disagreeable necessity that must be put up with if the final result is to be satisfactory. The stock solution may conveniently consist of one part of bichromate of potash and two parts of chloride of sodium in twelve or fifteen parts of water rendered very faintly acid.

The action of this solution does not completely remove the image even from an untoned print; there is always a faint trace of something left apparently in the body of the paper, but with a *toned* print the gold portion of the image that remains is, of course, plainly visible of a dirty slate colour, though it perhaps falls far short of the strength it might be supposed to possess, considering the influence it has on the colour of the print. Therefore it is not necessary to continue the bleaching action in the hope of obtaining a perfectly white sheet of paper; a very little experience will teach when the action is complete, after which the print must be very carefully washed to remove as far as possible the bichromate left in the paper, which will otherwise give rise to inequality in the action of the subsequent development. A slight yellowness, differing entirely from that produced by sulphuration, will probably resist all washing, but this need cause no trouble, as it will disappear at an early stage of development, owing to the action of the sulphite in reducing the chromium salt.

Any developer of the "chemical" class may be employed, but, naturally, the preference will be given to those which, unlike pyro, develop without chance of stain. Pyro, if combined with sufficient sulphite to give a stainless result on film and paper, will give just as good a tone as any, for, contrary to what might be supposed, the developer has very little influence in altering the colour of the restored image, strange as it may appear. The paragraph anent Herr Hopecky's plan speaks of developing with hydroquinone "for a blackish tint." As a matter of fact, it is extremely difficult to get such a colour with any developer under any circumstances when "restoring" either an albumen or a gelatino-chloride print, or when operating upon an untoned print of either sort.

When I just published my experience with this process I commented upon the curious fact that the bleaching and redeveloping operations had practically no effect upon the original tone of the print. If originally purple, purple it was restored, and if brown, brown, while a fixed but untoned print, if so treated, is only with the greatest difficulty induced to take any but the disagreeable brown colour it presented on leaving the hpyo bath. It seems to me that everything depends upon the molecular condition of the silver forming the image. The bleaching and redevelopment do not in any way modify this condition, and the image is restored in precisely its original form; and in the case of a gold or platinum-toned picture, the toned portion of the image being also unaltered, the colour of the restored picture remains the same as at first.

But there is another peculiarity which I have only just discovered. The two prints enclosed with this article were originally identical, but one has been treated by the "restoration" method, with the result that while the general tone is precisely or practically the same, it shows decided symptoms of "double toning" and pinkness of the lights. Now here is the curious part of the business: These two prints were made about three years ago upon a sample of gelatino-chloride paper that would only tone with sulphocyanide, and even with that, after the first few prints of a bath, showed a reluctance to go past a disagreeable brown colour in the shadows, and it was often only by making a fresh bath that an even and uniform tone could be obtained. Although the two prints had been originally sucessfully toned, the "restored" one, curiously enough, develops the weak points of the paper I have long since discarded.

In conclusion, although I am not prepared to say that this method will prove an infallible and perfect cure for all the cases of fading in either albumen or gelatine, I am sure it will in the majority of cases effect a great improvement, and I think stop the print in its downward track. And if carefully worked, bearing in mind the caution I have given, it may be undertaken with the most perfect safety even on pictures of value.—*Photography.*

Even Illumination.

By C. J.

Even illumination is at the same time the most desirable and the most difficult to secure of conditions that specially affect photography. We all want it, and it is hardly an exaggeration to say that we never get it. Those whose only desire is to make

pictures by photography as well as scientific workers want even illumination. The beginner wants it, too, but probably does not know that he never secures it.

Photography from an optical point of view stands alone in the angle of view and the size of the field that it is desired to get good definition over. It is impossible by means of any of our ordinary lenses, even with the smallest of stops, or by means of a pinhole with the thinnest of edges, to get an equal illumination over a field of appreciable area. With an image angle of sixty degrees the illumination at the margin of the field is only about a half of what it is at the centre, and with an angle of ninety degrees it is only one-fourth. An image angle of sixty degrees (taking, of course, the diagonal of the plate) is by no means uncommon; it would harldy be called a "wide angle." And yet there are those who talk about an *exact* exposure in the camera. If a straight line is drawn from the centre of the field (practically the middle of the plate) to the margin, no two parts of it receive the same exposure. This must be borne in mind in any attempt to utilise the camera for determining the relative speeds of plates. But in practical photography it very rarely, if ever, happens that the falling off of the illumination is not much greater than is stated above, for the more oblique the ray is when it impinges on the glass surface of the lens, the greater is the loss by reflection, and generally, too, the greater is the thickness of glass that the ray has to pass through. Both these circumstances cause a loss of light, and are beyond the control of the photographer, but a great loss is due to the use of so large an aperture that the mount of the lens interferes with the marginal pencils. The use of large apertures is often advocated as specially desirable in pictorial work, but it has this grave disadvantage.

To reduce unequal illumination as far as possible in camera work, the angle included should be as small as may be, or, in other words, for any given plate the focal length of the lens should be as long as possible. To take a definite example. A lens of thirteen inches focal length if used on a quarter-plate will give a loss of about six per cent. of light at the corners as compared with the middle. The same lens on a half-plate gives about fourteen per cent. less light at the corners than the middle. This is almost negligible in ordinary cases, though it may be noted that to compensate for it, the speed of the plate if 86 H. and D. would need to be increased to 100 H. and D. at the corners, and we have met with those who considered that an increase of speed as indicated by these numbers was a very considerable and noticeable gain. The same lens on a whole-plate would give about twenty-two per cent. less light at the corners than the middle, or an equivalent difference in H. and D. speed numbers of seventy-eight to one hundred, or of 156 to 200—a loss of nearly one-fourth. Now these losses are the least theoretically possible, and practically are always exceeded, although in no case is the aperture larger than will allow of the transmission of the whole of the oblique pencils. And a lens of thirteen inches focal length is larger in focus than the usual rapid whole-plate lens by two inches, so that the figures given refer to an exceptionally favourable set of conditions, the worst being the use of what is commonly called a 10 x 8 rapid lens on a whole-plate. This loss of light at the margin of the field it is practically impossible to prevent. Various devices have been introduced from time to time to remedy the defect, but none have proved practically acceptable. The diaphragm has had wings attached to it, a glass of increasing opacity towards its centre has been attached to the lens, the ingenious device of M. de la Crouee that Mr. Dallmeyer brought before the Royal Photographic Society two or three years ago was a revolving aperture reducing the light from the center of the lens outwards, but none have received much appreciation. It is, as we have seen, impossible to increase the marginal illumination; the only way, therefore, is to reduce the light that reaches the centre of the plate, and this, of course, "slows the lens." It is a question that probably few photographers ask themselves, what part of the plate is the exposure calculated for? It is, however, a question that might well receive more attention, especially by those who consider that there is in all cases a correct exposure which cannot be varied without disadvantage. With the use of large apertures, so that the marginal pencils are partly cut off, the importance of the consideration of the inequality of illumination becomes greatly increased.

In enlarging, it is desirable to equally illuminate the negative, transparency, or print that is to be copied. The difficulties to be overcome are perhaps the fewest in the case of a print that is illuminated from the front. If daylight is used, care must be taken that it falls as nearly as possible symmentrically upon the print, and that the camera casts no shadow on it. Beginners too often stand while the exposure is being given, so that they themselves cast a shadow if their camera does not, and a shadow that is hardly perceptible to any but a practised observer will cause a very obvious inequality in the density of a negative that ought to be of equal opacity throughout. It is generally possible, especially with prints not larger than of moderate size, to get a nearer approach to equality of illumination by artificial lights than by daylight. As we shall presently see, it is practically impossible to get a perfectly even illumination, but we are not speaking now of scientific accuracy, but only of a sufficient approach to perfection for practical purposes. Two equal lights, one on each side of the camera, is a well-known and satisfactory system. A good deal of commercial work is, we believe, done with one light on one side only, but unless the subject is very small, or the light at a considerable distance from it, there is danger that the effect of the inequality of illumination, which must in any case exist, will be apparent in the result. With a negative or transparency, the difficulty is greater. A condenser of sufficient size with a well-centred light at a proper distance behind it is an arrangement that overcomes the difficulty, and is largely used. Probably many would say that it is the only satisfactory arrangement for commercial purposes. But it is preferable that either an electric arc or limelight be used, for if the illuminant is of large area, and especially if it is of a multiple kind, such as the lamps made for optical lanterns, it will probably be impossible to mask the effects of the inequality of the illumination. If an equally illuminated surface could be obtained behind the transparency, a condenser would be superfluous. Some point their apparatus to the sky and use that, but the sky is not often equally luminous, and sometimes, especially in the country and in changeable weather, it is so varying in its brightness that it is useless. A very common practice is to have an illuminating surface inclined upward behind the transparency. A mirror may be used, but it has the same disadvantage, as pointing the apparatus direct to the sky, and it is in effect the same with the irregularity of the mirror itself in addition. The common kinds of silvered glass are useless for this purpose, for their undulating surface concentrates the light in some parts and disperses it in others, so that the result is disastrous. What is wanted is a perfectly matt white surface. Cardboard may serve, but so far as it is shiny it is not good. Opal glass is useless unless the surface used is matt to prevent regular reflection. A further consideration of this subject and its application in other cases we shall give on a future occasion.—*Photography*.

The Latest of the Kodaks.

The latest it is, but, if one may judge from previous experience of the enterprise of the Eastern Company, not by any means the last. The sale of the pocket kodak—meaning that wounderfully ingenious little five-and-a-half ounce affairs in morocco leather—has been simply phenomenal, and has given rise to the belief in Rochester, U.S.A, and Oxford Street, Village of London, England, that a demand for a rather larger camera on similar lines, equally pocketable, would spring into being directly there was a possibility of supply.

Naturally the Eastman Company wished it might be so, for although in these cameras they give you what a certain tobacconist who saves you 33 per cent. on all your purchases calls "value for money"—a fact which nobody can deny—they do not do this sort of thing at a loss to themselves. Now a wish of that kind with this company is always father to the thought, which, in its turn, soon gives birth to a camera to suit the case. The new pocket kodak is twice the price of its little brother, and although by its instrumentality you may take photogrpahs more than twice the size, the instrument is even more convenient for carrying in that nowadays omnivorous receptacie called the pocket. As may be supposed, this result is brought about by calling into play that American ingenuity in folding devices which has been so conspicuous in most of the latter-day kodaks.

And the latest scion of the noble house of kodak upholds all the cherished traditions of the race and introduces a few fresh ingenious devices by way of novelty and to secure as a precedent for cameras of the future. The little instrument looks remarkably small and innocent as it lies in the palm of your hand—a long-shaped rectangular leather-covered affair, rounded at the edge like a Christmas novelty in hymn-books. You turn it over and presently discern the little handle which is well-known outward and visible sign of an inward rollholder. The board carrying the lens and the shutter is attached to the hind part of the camera in a novel and ingenious manner. You know what a lazy-tongs is like? Well, imagine a single link, as it were, of a lazy-tongs at the top and another beneath connecting the camera front to its rollholder, etc. You catch hold of the lens and pull it out gently. Half way out it takes matters into its own hands, as it were, and the lazy-

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tongs stretch out their arms and the camera pops out of full extension before you know what has happened, and announces the success of the manœuvre with a triumphant cluck.

Then all is ready for the fray; even the shutter is set. As a matter of fact the shutter (an extremely clever little contrivance, by the way), always it is set. You press one release for "time" and another for "instantaneous," and so, unless you press the wrong button, you can hardly give one exposure when you wanted to make the other, as so easily happens with other forms of shutter by neglecting to alter the setting between the "shots." After the attack, when you want to close the instrument, you just press the lazy-tongs on the inside elbow, and the whole affair immediately subsides into its pristine state of innocent hymnbookism.

As for the film, the method of changing, and their other manipulations, these things are getting familiar to all photographers under the title of the "Day-light System." It is a very easy operation, when one set of a dozen exposures has been made, to slip in a fresh spool in its place when one has the ample light of day to guide one, but simple as [illegible] is, it has been considerably facilitated in this camera by the [illegible] of one or two new devices, small in themselves, but all tendin[illegible] as does everything else concerned, to increase the comfort w[illegible]h follows at the heels of the up-to-date kodak man.—*The Amate[illegible] Photographer.*

Tourist and Half Holiday Notes.

The Italian Lakes and Venice.

Space need not be occupied in detailing how to reach the Italian Lake. They may be taken from Locarno, or from Lugano. Having travelled over both routes, I prefer the former as being like beginning the journey at the right end; other places seem to come in proper order. In such a lovely district it is hard to know where to begin, but if it is a first visit, it is better to make a tour of the lakes from Locarno, visiting Maggiore and ending the jonrney at Laveno; then proceed to Varese and Porto, and by steamer to Lugano, and proceed in the following order:—Steamer to Porlezza, drive to Menaggio, which is on the Lake of Como, seeing the Lago d'Isco and di Garda, and ending the lake journey at Lecco by way of Bergamo. This is the outline, and the well-beaten track of the "personally conducted," a crowd of persons not altogether agreeable to the earnest photographic tourist. There is much to do, and a good deal of it requires doing. The cloudless sky, reflecting water, and clear atmosphere need studing, as these conditions are vastly different to what we are accustomed to in England. Slow plates and short exposures must be the rule. If much work is contemplated a test photograph had better be taken at the outset. I perfer this to using any actinometer I have ever seen. Please bear in mind I am writing my own experience, having travelled half over Europe with a camera. Should a stay in Locarno be desired, the Grand Hotol, Locarno, is good; charges are about the usual rate, but a less expensive house I found to be the "Suisse." It will be impossible to name all the desirable bits for the camera. Each visitor must make his own selection, but all visitors, whether photographic or not, should well explore the Val Maggia, as far as Bignasco; a diligence goes the journey, but by all means do it on foot. The whole valley is so rich in beauty of all kinds, that the camera need not be done up, but carried under the arm or over the shoulder, so as to be ready at the moment. The Maggiore Lake is forty miles long and five wide; the whole length can be done by steamer. At my last visit I found three services daily, the journey taking six hours, at a cost of five francs. There are many small places on the lake to which particular interests are attached, such as Ascona for its ruined castle, Cannobbio for the wonderful frescoes in the church, Oggebbio near the mountain Il Sasso del Ferro—which every visitor should ascend if only for the view presented, reaching from the city of Milan to the famons Monte Rosa; this view is unsurpassed in all Italy—and lastly, Baveno, from which place the Borromean Islands can be visited. The places named are all on the Maggiore lake, and should be made stopping places if time permits, as they are in themselves centres for much that is worth doing. Reasonable convenience can be obtained at most for a stay of few hours or several days. Beautiful as Maggiore is, to my mind the most charming lake in all Italy is that of Como, which is saying a good deal, where all is so beautiful. The principal places to visit are, Menaggio, the country round which is simply a paradise, exceeding the most fertile imagination; Bellagio and Cadenabbia, which is situated opposite. There are comfortable hotels at each place, until Como itself is reached; the place to stay is the Hotel de la Rein d'Angleterre. Space will not allow of a detail of the sights hereabouts; take it on the statement of a traveller, they are simply bewildering. The Lake of Lugano differs somewhat from those first named, but it is sure to please. It can be reached from Menaggio or Como, or from Magadino or Maggiore, whichever may be more convenient. The remaining lakes are Varese, Orta, and two small ones. There is ample means of reaching them all by omnibus or diligence; but having seen, and well done, the larger, the smaller may easily be left out. I have occupied too much space in detailing the lakes, that I have none left for Venico, which would warrant a reply to itself, occuping as much space. The best way of reaching this city of the sea is *via* Milan, from which city it is 164 miles (Eng.), travelling by express. If the journey is to be broken, halts may be called at Brescia, Verona, Vincenza, or Padua. These are the usual stoping places, but unless there is plenty of time, pass them by and get on to Venice, the wonderful city, of which there is no equal. I wander over its streets, and up and down its water highways, in imagination, and only regret that my allotted space is already filled, that I cannot go into description, such as a photographer can write, of the kind not given in guide-books, which abound galore. It must be seen through the camera to do it justice or to be of service to the tourist photographer. Photographic requisites can be obtained at most of the chief towns and cities, but English makes and sizes cannot be depended on. Take all with you or have them sent on. There is no difficulty with the officials, so long as descriptions are fully given and clearly made out. I shall be pleased to reply to any definite questions if needed.—*The Amateur Photographer.*

PICTURES FOR THE MONTH.

Subject:—"A Child or Children."

Mrs. M. N.—"Four little Burmese boys and their tutor" is in many respects an excellent picture. The grouping, however, is far from satisfactory —though possibly this could not be avoided— and the last boy has moved rather badly. "First attempt at taking a photo. from a photo." as a first attempt is distinctly good. It is not easy to criticize it without seeing the original, but we think more contrast would be obtained by giving a longer exposure with a much more subdued light. Exposures up to half an hour on slow plates are by no means too much for copies.

Mrs. E. E.—"Children." The posing is good and the boys look very natural but the picture is greatly over-exposed so that all details of the features are lost—Possibly, also, too large a stop was used, "A child" is an excellent picture somewhat spoiled by being printed on stale paper. A few white spots might have been touched out with advantage.

Mrs. L. P—This is a capital picture of both the boy and the dog, but the back-ground is rather distracting. The two white paths meeting behind the boy certainly lead the eye away from the chief subject of the picture. In our opinion the picture would be very greatly improved by cutting it down to carte size. It would bring the boy into far greater prominence.

C. S.—This strikes us as having been printed from a greatly over-exposed negative on very bad paper.

R. V.—"Twins" We cannot praise this picture. We doubt if it would have been possible to make a picture out of these twins or of any twins of whom only the heads and shoulders are seen. The printing and toning are hardly up to your usual standard and the vignetting is not very successful.

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COMPETITIONS.

(Open only to Members of the Society.)

SUBJECT FOR MONTHLY COMPETITIONS IN { JANUARY.——— FEBRUARY.—"*Pets.*"

RULES.

1. *Two Special Competitions shall be held, in each year, in addition to a monthly competition.*

2. *The Committee shall select the subjects for the Special Competitions, and notice of the selected subjects shall be announced in the Society's Journal in February and in July of each year. The subject for each monthly competition shall be selected two months in advance by the members present at the monthly meeting, and shall be notified in the next issue of the Society's Journal.*

3. *Pictures, &c., competing for Prizes at the Special Competitions must reach the Secretary by the last day of January and of May, and those competing at the monthly competitions must arrive in time to be shown at the monthly meeting.*

4. *Prizes will consist of Silver and of Bronze Medals, and of Certificates of Merit.*

5. *Not more than one Silver and one Bronze Medal shall be given at each Special Competition, and one Silver and one Bronze Medal may also be given at these competitions for excellence in copying, enlarging, lantern slides, or any other special branch of photography. One Silver and one Bronze Medal shall be awarded half-yearly to the exhibitors who obtain the highest and the next highest marks respectively at the monthly competitions. The number of Certificates of Merit granted at each competition is left to the discretion of the Judges.*

6. *A member may receive only one Silver and one Bronze Medal in the special, and one Silver and one Bronze Medal in the monthly, competitions, held during the same year; but should a member who has been adjudged a medal be disqualified under this rule from receiving it, he shall be given a Special Certificate instead, marked 1st or 2nd Prize.*

7. *A Special Committee of three members shall be appointed Judges by the General Committee to carry out, subject to these Rules, all arrangements connected with the competitions.*

8. *The Special Committee shall be appointed after the Annual General Meeting in January, and shall hold office for one year, and any vacancy occurring will be filled up by the General Committee.*

9. *The Special Committee shall decide upon the merits of the pictures, &c., sent in for competition, and their decision shall be final. The system of judging the monthly exhibits shall be by awarding marks, a record of which shall be kept by the Judges, the marks being totalled and the results declared half-yearly. For this purpose, only the three highest marks awarded at each competition to each competitor shall be recorded, but not the aggregate marks gained by each for a number of exhibits.*

10. *If any member of the Special Committee is a competitor, the General Committee shall appoint a non-competing member to act as Judge at that competition instead of the competing member.*

11. *No exhibit shall compete twice, but pictures, &c., already exhibited elsewhere, may be sent in for the competitions.*

12. *Lantern slides sent in for competition shall be in sets of six, and shall be judged upon the screen.*

13. *The Special Committee shall not award any Prizes or Certificates, unless they consider the exhibits to be worthy of such distinction.*

14. *Each competing exhibit shall be the entire work of the exhibitor, and when sent in shall be accompanied by a Certificate in the annexed form:—*

> "*The (1) Arranging, (2) Exposing, (3) Developing, (4) Retouching (if any), (5) Printing and (6) Trimming and Mounting were done by me without assistance.*"
>
> ______________________
>
> *Member, A. P. Socy. of Madras.*

15. *All pictures for the Special Competitions shall be mounted, and may, at the competitor's option, be framed but not glazed. Those for the monthly competitions need not be mounted, but should be trimmed.*

16. *Each competing picture should have a name or title, which should indicate the nature of the subject.*

17. *No competitor shall be allowed to send in more than six pictures to compete for any particular Prize, but the same member may compete in all branches specified in Rule 5.*

18. *The pictures gaining 1st and 2nd Prizes at the half-yearly competitions, and the best pictures sent for the monthly competitions, shall, when practicable, be reproduced in the Society's Journal.*

19. *To give up-country members an opportunity of seeing the competing pictures at the special competitions, the pictures shall be circulated to all members of the Society, not residing in Madras, who apply to see them. As this arrangement can only be carried out by the cordial co-operation of the members themselves, they are expected to forward the pictures without delay to the next member, and to send one of the accompanying post-cards to the Secretary, so that by this means the progress of the pictures may be traced.*

List of Members whose Dark Rooms are available for use by Members of the Madras Amateur Photographic Society.

T. P. S. NAGARATNAM, 47, Malayappen Street, Black Town.
E. MAENNIG, Buckingham House, Tranquebar.
J. CHOKANNA, AMILDAR, Bowringpet, Mysore State.

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NOTICES.

Members of the Madras Amateur Photographic Society are permitted to use this column free of charge for two insertions of each advertisement—all subsequent insertions of the same being chargeable at 2 annas a line. When an advertisement becomes liable to this charge, it will not be inserted unless a postal order or stamps to the value of the charge are previously sent, addressed to Graves, Cookson and Co., Scottish Press, Mount Road Branch, Madras. Advertisements received up to the 5th of each month will be inserted in the next issue of the Journal; those received after this date will be held over for the subsequent issue.

Subscribers, and others who are not regular dealers may make use of this column for advertisements by paying at the rate of 3 annas a line.

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Entrance Fee, Rs. 5.—Annual Subscription *for Resident Members, Rs. 15; for Up-country Members, Rs. 12. Members joining after 30th June pay Half-year's Subscription.*

Candidates for Election—*should be proposed by one member and seconded by another; and they will be ballotted for at the following meeting.*

Ordinary Meetings—*of the Society are held on the first Friday of each month at 6 p.m. and members are at liberty to introduce visitors.*

Letters to the Editor—*should be addressed care of Messrs. Graves, Cookson & Co., Scottish Press, Mount Road Branch, Madras.*

Letters to the Honorary Secretary—*should be addressed to S. Jackson, Esq., care of Messrs. Binny & Co., Madras.*

Letters to the Honorary Treasurer and Remittances—*should be addressed V. G. Lynn, Esq., care of Messrs. Best & Co., Madras.*

Communications regarding the issue of the Journal—*should be addressed to the Publishers.*

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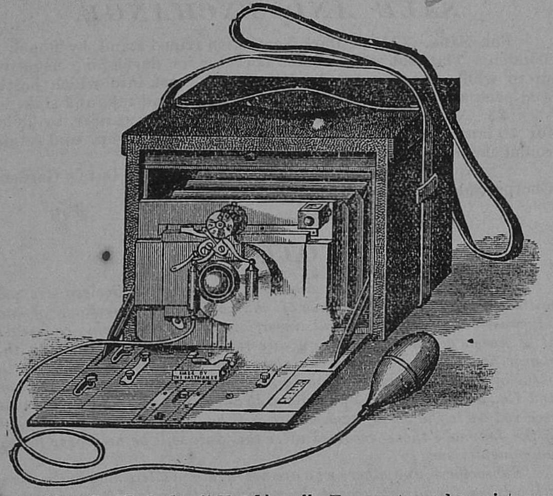

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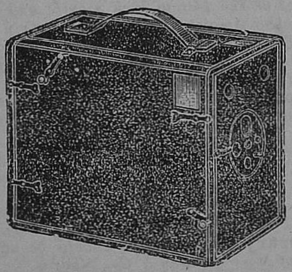

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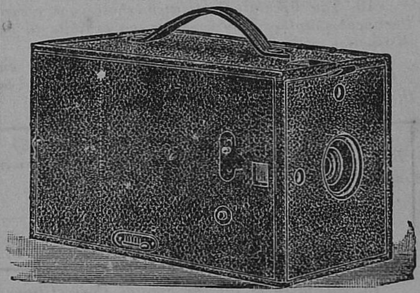

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